Description

Arrangement for Attaching a Hygienic Article

The invention is based on an arrangement for attaching a hygienic article, for example, a hand-held shower head, such that its height will be adjustable. Vertical wall-mounting rods that are normally mounted at a short distance from a wall are usually employed for this purpose. A pair of brackets, one each at the upper end and lower end of the rod, are employed for mounting it on the wall. These brackets simultaneously form the end caps of the wall-mounting rod. A slide guided on the wall-mounting rod, and to which the shower head is fastened, may be slid along the full length of the wall-mounting rod, but cannot be slid off its upper or lower end.

Also known are guides in the form of lengths of elaborately profiled stock that are usually configured in the form of hollow profiled structures, where a guide for the slide may be formed by a groove on their front or rear surface.

The problem addressed by the invention is creating an arrangement for attaching adjustable hygienic articles that will yield greater freedom in the manner in which they are attached.

In order to solve that problem, the invention proposes an arrangement having those features stated in claim 1. Elaborations on the invention are covered by the subclaims.

According to the theory underlying the invention, the at least one bracket for mounting the wall-mounting rod will be confined to its proper function. Its task is holding the wall-mounting rod in place without simultaneously forming the stops at the top or bottom of the rod. If such stops are desired, stops, for example, collars, may be attached to the, in this case, free ends of the profiled rod or to the bracket. If a wall-mounting rod is fastened to the wall using such a bracket at both its upper

and lower end, it will still be possible to remove just its terminating collars, slide out the slide, and replace the slide.

The invention is, for example, applicable to wall-mounting rods where the slide rides on their outer surface. Only a narrow section on the slide will need to be left free for clearing the bracket.

Another configuration of the wall-mounting rod made feasible by the invention is assembling it from several coaxial sections, which will allow assembling wall-mounting rods having differing lengths from individual, modular components. In the simplest case, this may be accomplished by consecutively attaching the sections of the wall-mounting rod using one or two brackets for each section. Their alignment may be accomplished by virtue of their having been mounted on the wall alone.

The invention proposes configuring the brackets such that they may be attached to the wall-mounting rod near its ends.

In particular, it may be provided that the brackets may be are attached to the wall-mounting rod by inserting them therein, latching them thereon, or other means of attachment, without use of tools, and without need for attaching them to the wall-mounting rod using screws. Fastening the wall-mounting rod to the brackets may be accomplished by fastening a pair of wall brackets onto the wall using screws such that the wall-mounting bracket bridges them.

According to the invention, the arrangement may have several, at least partially identical brackets. The brackets may also be reversed before being attached to the wall-mounting rod, if necessary.

As has been mentioned above, the wall-mounting rod may be assembled from individual sections. Since the brackets leave the guiding length of profiled stock unobstructed, the slide may then be slid over the intersection of two sections. Under an elaboration on the invention, it may then be provided that at least one

bracket is configured for joining two sections of the wall-mounting rod to be arranged coaxially. The alignment and orientation of the two sections of the wall-mounting rod may also be accomplished using a bracket. Only a single bracket will then need to be present at the joint of the two sections of the wall-mounting rod.

Under an elaboration on the invention, the at least one bracket may have a pair of attachment sections, one on each end, one of which is configured for attaching a terminating collar or other means of terminating the wall-mounting rod. This configuration may differ from that intended for attaching it to the section of wall-mounting rod, since the section of wall-mounting rod will still be supported by another bracket at its other end. The section of the bracket for attaching the terminating collar or the end cap of the wall-mounting rod may be used for securely attaching this component; in particular, its attachment section may have a device for form-fit or interference-fit attachment of the terminating component.

Nevertheless, in this case as well, it may also be provided that both attachment sections of a bracket have means for guiding the sections of the wall-mounting rod.

According to the invention, it may be provided that the pair of attachment sections of a bracket are separated by a land that forms a split joint when all components have been assembled. The land may be configured in the form of a narrow, circumferential protrusion that will also provide certain opportunities for designing the assembly's appearance. In some cases, the land may also be broadened, particularly if other components are to be attached thereto.

In order to fasten the bracket to the wall, a hole for inserting a screw may be present, where this hole is preferably arranged within the attachment section intended for attaching the terminating component.

The wall-mounting rod may, for example, have a groove forming the guiding profile on either its rear surface or, in particular, on its front surface. The bracket will then also leave this groove unobstructed. For example, a lower terminating component

may have an extension of the groove in order that, in this case as well, the slide may be slid out of the groove without removing any parts from the wall-mounting rod.

A shower hose that may be subsequently readily withdrawn from the groove may also be accommodated in the groove, beneath the slide.

The wall-mounting rod itself may be formed from a length of hollow, profiled stock whose inner surface is engaged by the attachment sections of the bracket.

Additional holders for auxiliary items, for example, a holder for a toothbrush glass, may be attached to the bracket at, for example, the intersection of two sections of the wall-mounting rod.

Other features, details, and benefits of the invention are as stated in the following description of preferred embodiments of the invention, the claims, and the abstract, whose wordings are herewith made part of the content of the description by way of reference thereto, and as shown in the accompanying figures, which depict:

Fig. 1 a schematized view of a wall-mounting rod consisting of two sections and having a bracket for attaching a shower head;

Fig. 2 enlarged views of individual components of the bracket assembly;

Fig. 3 a sectioned view of a profiled wall-mounting rod of another embodiment;

Fig. 4 a partially longitudinally sectioned view of the joint of two sections of the wall-mounting rod having a circular cross-section;

Fig. 5 a top view of the bracket of the embodiment shown in Fig. 4;

Fig. 6 a frontal view of another bracket.

Fig. 1 depicts a wall-mounting rod that is to be assembled from an upper section 1a and a lower section 1b. Both sections 1a, 1b of the wall-mounting rod have the same cross-section, but, in the case of the example shown here, differing lengths. An approximately U-shaped bracket 2 is depicted at the joint of the two sections 1a, 1b, which are shown here separated. The land has a hole, through which a screw that may be used for fastening the bracket 2 to, for example, a wall, may be inserted. A bracket 2 is also present at the upper end of the upper section 1a of the wall-mounting rod, and another is present at the lower end of the lower section 1b of the wall-mounting rod. Its upper end is to be terminated by an end cap 3, while a terminating component is to be attached thereto in the vicinity of its lower end. The front surface of the wall-mounting rod, i.e., that surface thereof that faces away from the wall, incorporates a continuous groove 5 having a constant cross-section extending from top to bottom, within which a slide 6 having a holder 7 for a hand-held shower head is guided such that its position is adjustable.

The bracket 2 is configured such that it leaves the groove 5 unobstructed in order that the slide 6 may be readily slid out of the upper section 1a of the wall-mounting rod and into the lower section 1b of the wall-mounting rod.

Assembly takes place in the following order: Firstly, the central bracket 2 is fastened to the wall using a screw. The upper section 1a of the wall-mounting rod is then set onto the slide such that the upper portion of the latter engages the profile in the section 1a of the wall-mounting rod, as shall be explained below. The upper bracket 2 is then attached to the upper section 1a of the wall-mounting rod and fastened to the wall using a screw. The end cap 3 is then set onto the upper end of the wall-mounting rod.

Finally, the lower section 1b of the wall-mounting rod is slid onto the fully assembled bracket 2 and the lower bracket is fastened to the wall using a screw. The lower terminating component 4 may then be fastened to the lower bracket 2.

One could also start at the bottom, in which case, the sections of the rod may be slid onto the brackets from above and will not slip down during the period before the next bracket has been fastened in place. In particular, preassembled rods may be extended upward or downward.

The individual components of this arrangement of wall-mounting rods are depicted in Fig. 2, where only a single, rather short, section 1a has been shown for the sake of simplicity.

Let us now turn to the bracket 2. The upper bracket 2 shown in Fig. 2 has an upper attachment section 2a and a lower attachment section 2b. These two attachment section 2a, 2b are separated by a land 8 running around both the inner surface and outer surface of the bracket 2. A hole 9 for inserting a screw is arranged on the rear wall of the upper attachment section 2a. A flexible protrusion 10 that is capable of flexing inward is formed on the sidewall of the attachment section 2a. This protrusion extends from a guiding surface 11 that lies in the same plane as the guiding surface 12 on the other side of the land 8.

This land may be extended transverse to the longitudinal axis of the wall-mounting rod, i.e., may be broadened. That portion thereof that is clearly visible, which may also be used as a design feature, may then also be used for providing fasteners, to which other items, for example, storage trays, holders for toothbrush glasses, or similar, may be attached.

A similarly configured arrangement, i.e., a flexible protrusion 10 and guiding surfaces 11 that extend into the guiding surface 12 of the lower attachment section 2b, is present on the opposite, outer surface of the upper attachment section 2a, which is concealed from view in the figure.

The upper attachment section 2a of the upper bracket 2 shown in Fig. 2 accommodates the aforementioned end cap 3, which has a hole 13 in its sidewall

that is engaged by the flexible protrusion 10 from within, thereby yielding a form-fit detention of the end cap 3.

Fig. 1 depicts a shortened representation of the profile of the wall-mounting rod 1a, which is a fully enclosed hollow profile. The sidewalls of the bracket 2 engage the inner surfaces of the hollow profile. Their mating guiding surfaces 12 are thus located on the inner surfaces of the profile. Inserting the bracket into the profile may, in some cases, yield a tight fit in order that the bracket 2 will be held in place in the profile once it has inserted therein.

A second bracket 2 that is shown in the lowermost drawing of Fig. 2 is then attached to the lower end of the section 1b of the wall-mounting rod. However, in this case, it has been depicted rotated through 180°, since the attachment section 2a is now intended to accommodate the terminating component 4, which is configured similarly to the end cap 3, except that it has a through hole.

The wall-mounting rod has the aforementioned continuous groove 5, which is dimensioned such that the shower hose of the shower head inserted into the holder 7 may be emplaced in this groove 5, on its front surface 14. Since the brackets 2 engage the interior of the profiled wall-mounting rod, they leave the cross-section of the groove 5 totally arbitrary. The groove 5 forms the profiled surfaces for guiding the slide 6. The outer edges of the land 8 are contoured such that they match the contour of the outer surface of the profiled wall-mounting rod. No portion of the land thus extends into the profiled cross-section of the groove 5.

The two brackets shown in Fig. 2 are identically configured, even though they are differently arranged. One of their two attachment sections is specially designed for attaching a terminating component, but may be used for inserting the bracket into the interior of the profiled wall-mounting rod 1, and thus guiding the bracket therein. Although the guiding surfaces 12 on attachment section 2a for the profiled wall-mounting rod 1 are somewhat shorter than those on th remainder thereof, they are wholly adequate for guiding it. The flexible protrusion 10 may be bent back in

order that it will be out of the way. A form-fit retention in the lateral direction is unnecessary in the case of the wall-mounting rods, since th y are held in place at both ends by the respective brackets 2.

There is no need for a bracket 2 to have two attachment sections 2a for attaching terminating components, since cases where two terminating elements are to be attached immediately adjacent to, and abutting against, one another never occur.

The lower terminating component 4 (cf. Fig. 1) is configured such that it has practically the same profile as the wall-mounting rod, except that its profile is not open at the rear. The terminating component 4 extends the groove 5. The hose may hang down through this terminating component.

Fig. 3 depicts another embodiment where the wall-mounting rod 21 is also configured in the form of a length of hollow, profiled stock have a groove 5 that forms the profiled surfaces for guiding the slide on its front surface. In the case of this embodiment, a bracket may also be shaped such that both of its attachment sections engage the interior 22 of the hollow profiled stock. The bracket may also be shaped such that it has a pair of lateral lobes that engage the pair of profiled channels 23 on the lateral surfaces of the wall-mounting rod 21. However, a configuration where they engage the interior of the hollow profiled stock is preferred.

Whereas the two embodiments that have thus far been treated relate to hollow profiled stock where a groove provides the profiled, guiding surfaces, Figs. 4 and 5 depict a simplified embodiment having a wall-mounting rod having a circular cross-section, where a slide rides on the outer surface of the wall-mounting rod. The bottom end of the upper section 31a of the wall-mounting rod has a short, narrow slot 32. The lower section 31b of the wall-mounting rod has a similar slot 32 in the vicinity of its upper end. The bracket 34 incorporates a cylindrical retaining section 35 whose outer diameter equals the inner diameter of the wall-mounting rod 31. The retaining section 35 is joined to a retaining plate 37 that has screw holes 38 by

a narrow land 36. The bracket 34 is screwed onto the wall and the two sections 31a, 31b of the wall-mounting rod are then slid onto the retaining section 35 from above or below, yielding a continuous, wall-mounting rod, onto which a slide having a slot mating to the land 36 may be slid over the bracket 34 and onward, until it reaches a certain position.

Let us now turn to Fig. 6. Fig. 6 depicts a frontal view of a bracket 40 that may be used for mounting a wall-mounting rod according to Figs. 1 through 3. Whereas the bracket shown in Figs. 1 and 2 has a very narrow land 8, that shown here has a broadened land 41. A pair of short appendages 42 that are symmetrically arranged about the bracket's longitudinal centerline project outward from the land 41. A receptacle 43, which is shown here in a simplified representation only, that might, for example, be configured in the form of a short, cylindrical jack, into which a lug of, for example, a tray, might be inserted from above, is then arranged on the free end of each appendage 42. The bracket that fastens the wall-mounting rod to the wall may thus take on the additional function of providing facilities for attaching other items.

A pair of holes may be provided on the rear wall of the bracket for fastening it to the wall, whereas, in the case of the embodiment described earlier, only a single hole was present.
